

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1, 4, 11, 13, 14, and 20 are currently being amended. No new matter is added.

This amendment changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-20 are pending in this application.

In paragraphs 1 and 2 of the Office Action, claims 4-6 are rejected under 35 U.S.C. § 112, second paragraph. Applicants have amended claims 4-6 in accordance with the Examiner's suggestion. Accordingly, withdrawal of the rejection of claims 4-6 is respectfully requested.

In paragraphs 3-4 of the Office Action, claims 1, 2, 7-12 and 14-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,285,255 (Luu). The Examiner states:

-As per claim 1, see figure 3, and col. 3, line 25, Luu et al discloses a method comprising:

step (PM) of providing a phase modulation signal (see col. 3, lines 39-40),

step (MA) of providing amplitude modulation to the phase modulation signal to generate the modulate signal (see col. 3, lines 39-40), wherein the phase modulation and amplitude modulation are synchronized (see (50, 26) of figure 3 and col. 3, lines 56-59).

-As per claim 2, Luu et al discloses that the phase modulation and amplitude modulation are synchronized in accordance with a operational scheme (se figure 3).

-As per claim 7, Luu et al discloses that the providing amplitude modulation to the phase modulation signal to generate the modulated signal utilizes a gain controlled amplifier (42) (see figure 3).

-As per claim 8, Luu et al discloses that the modulated signal is a radio frequency signal (see (14) of figure 3).

-As per claims 9 and 10, Luu et al discloses that the providing a phase modulation signal utilizes an operations loop (14, PM, MA, 66, 68, 60, 62, 50, 51).

-As per claim 11, see figure 3, and col. 3, line 25, Luu et al discloses a method comprising:

step (PM) of phase or frequency modulating the signal in accordance with the first data (outputted from (14)); and

step (MA) of amplitude modulating the signal in accordance with the second data (outputted from (12)), wherein the steps of phase or frequency modulating and amplitude modulating are coordinated in time with respect to each other to ensure integrity of the first data and the second data (see (50, 26) of figure 3 and col. 3, lines 56-59).

Applicants respectfully traverse the rejection.

In paragraph 5 of the Office Action, claims 1-3 are rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,751,265 (Schell). The Examiner states:

-As per claim 1, see col. 4, line 29 to col. 5, line 41, Schell et al discloses a method comprising:

step (Phase Drive Processor 10) of providing a phase modulation signal (21A, 22A) (see col. 4, lines 64-67),

step (23, 24, 25) of providing amplitude modulation to the phase modulation signal to generate the modulated signal (see col. 5, lines 1-41), wherein the phase modulation and amplitude are inherently synchronized in time (t) (see (col. 5, lines 10 and 27)).

-As per claim 2, Schell et al discloses that the phase modulation and amplitude modulation are inherently synchronized in accordance with a operational scheme (see (col. 5, lines 10 and 27)).

-As per claim 3, Schell et al discloses the operational scheme includes providing the modulated signal having a desired

characteristic wherein the phase modulation is reversed when the amplitude modulation is minimum (see figure 3F, and col. 6, lines 37-47).

Applicants respectfully traverse the rejection. Applicants reserve the right to swear behind Luu and Schell if necessary.

The present application includes circuitry for coordinating the two types of modulation with each other. The circuitry responds to the modulated signal to coordinate the timing of the modulation.

Independent claim 1 recites that the modulated signals provided through a feedback circuit. The feedback circuit delays the amplitude modulation in response to the modulated signal to synchronize the phase modulation and the amplitude modulation. Claim 11 recites that the phase or frequency modulations and the amplitude modulations are coordinated in time by delaying the amplitude modulating in response to the signal. Independent claim 14 recites that a delay circuit is disposed between the second data input and the amplitude modulator circuit. The delay circuit responds to a feedback signal associated with the modulated signal to coordinate the modulation in response to the first data and the modulation in response to the second data.

In direct contrast to the recited structures and operations, Luu does not disclose delaying the amplitude modulation. Amplitude modulation in Luu appears to be provided without a delay circuit from audio source 12 through a path including components 24, 26, 40 and 44. Schell suffers from a similar deficiency. In Schell, modulation does not appear to be delayed in response to the modulated signal. Accordingly, Luu and Schell do not teach or suggest each and every limitation of independent claim 1 and dependent claims 2-7, independent claim 11 and its dependent claim 12, and independent claim 14 and its dependent claims 16-19.

Various dependent claims recite features which are also now shown, described or suggested in the cited art. For example, dependent claim 3 recites that the calibration scheme includes a modulated signal having desired characteristic wherein the phase modulation is reversed when the amplitude modulation is minimum. Further, claim 4 recites additional

features for the circuit structures. The calibration technique of reversing the phase modulation when the amplitude modulation is minimum and a specific structure for such an operation are not shown, described or suggested in Luu or Schell. Accordingly, claim 3 and its dependent claims 4-6 are patentable over the cited art.

In paragraph 6 of the Office Action, the Examiner indicated that claims 13 and 20 would be allowable if rewritten in independent form. Applicants have rewritten claims 13 and 20 in independent form. Accordingly, an indication of allowability of claims 13 and 20 is respectfully requested.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. § 1.136 and authorize payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

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